

Notice of Allowability

Application No.

09/297,399

Examiner

Callie E. Shosho

Applicant(s)

MIYAMOTO, MASARU

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to telephonic interview conducted 11/17/03.
2. ☒ The allowed claim(s) is/are 1,2 and 5-9.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 - (a) ☐ The translation of the foreign language provisional application has been received.
6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No. _____.
 - (b) ☐ including changes required by the proposed drawing correction filed _____, which has been approved by the Examiner.
 - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the margin according to 37 CFR 1.121(d).

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1 <input type="checkbox"/> Notice of References Cited (PTO-892) | 5 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6 <input checked="" type="checkbox"/> Interview Summary (PTO-413), Paper No. <u>11/17/03</u> . |
| 3 <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No. _____ | 7 <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9 <input type="checkbox"/> Other |

Callie E. Shosho
Primary Examiner
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Examiner's Amendment

1. An extension of time under 37 CFR 1.136(a) is required in order to make an examiner's amendment which places this application in condition for allowance. During a telephone conversation conducted on 11/17/03, Jonathan Mitchell requested an extension of time for ONE MONTH(S) and authorized the Director to charge Deposit Account No. 04-0100 the required fee of \$530.00 for this extension and authorized the following examiner's amendment. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

(1) In the specification, page 15, line 10, after "diameter" and before "was", change " μm " to "nm".

(2) In the specification, page 15, line 18, before "was", change " μm " to "nm".

(3) In the specification page 21, Table 1, under "Test items", line 2, after "diameter", change " μm " to "nm".

(4) In the specification page 21, Table 1, under "Test items", line 4, after "months", change " μm " to "nm".

(5) In the specification page 22, Table 2, under "Test items", line 2, after "diameter", change " μm " to "nm".

(6) In the specification page 22, Table 2, under "Test items", line 4, after "months", change " μm " to "nm".

(7) In the specification page 23, Table 3, under "Test items", line 2, after "diameter", change " μm " to "nm".

(8) In the specification page 23, Table 3, under "Test items", line 4, after "months", change " μm " to "nm".

(9) Claim 1, line 2, after "comprises" and before "a", insert "(i)".

(10) Claim 1, line 5, after "group," and before "a", insert "(ii)".

(11) Claim 1, line 6, "after "surfactant," and before "a", insert "(iii)".

(12) Claim 1, line 7, after “and” and before “a”, insert “(iv)”.

(13) Claim 1, line 6, after “surfactant”, and before “,”, insert “wherein the water-soluble polymer is selected from the group consisting of styrene-acrylic acid resins, styrene-maleic acid resins, polyvinyl alcohol, polyethylene-polyethylene glycol copolymers, alginic acid, and cellulose”.

Statement of Reasons for Allowance

2. The present claims are allowable over the “closest” prior art JP 6346014, Shay et al. (U.S. 5,478,602), and JP 54138732 for the following reasons:

JP 6346014 discloses a water based ink composition for ball-point pens which comprises pigment, polar solvent comprising water and other solvent (such as ethylene glycol), pH controlling agent, and 0.01-10% thickener which swells in an alkaline medium resulting in an increase in viscosity of the ink. However, there is no disclosure of thickener comprising a polymer having a carboxyl group and a hydrophobic group selected from the group consisting of a linear hydrocarbon, a halogenated alkyl, an organosilicon group, and a fluorinated carbon group as required in all the present claims. Further, there is no disclosure or suggestion in JP 6346014 of pigment surface treated with water-soluble polymer and surfactant as required in all the present claims.

In order to meet the claimed limitation regarding the specific thickener, JP 6346014 was combined with Shay et al. which discloses the use of associative thickener, suitable for use in any aqueous composition including inks, comprising carboxyl group and hydrophobic group wherein the hydrophobic group includes linear hydrocarbon, halogenated alkyl, organosilicon, and fluorinated carbon groups. However, there is no disclosure or suggestion in Shay et al. of pigment whose particles are subjected to surface treatment with water-soluble polymer and surfactant as required in all the present claims.

In order to meet the limitation regarding the surface treated pigment, JP 6346014 was combined with JP 54138732, which is drawn to a writing ink composition, and discloses the use of pigment surface treated with water-soluble polymer. The treated pigment is then mixed with

surfactant which will result in pigment treated with water-soluble polymer and surfactant. However, while JP 54138732 disclose treating the pigment with water-soluble polymer, there is no disclosure or suggestion that the water-soluble polymer is selected from the group consisting of styrene-acrylic acid resins, styrene-maleic acid resins, polyvinyl alcohol, polyethylene-polyethylene glycol copolymers, alginic acid, and cellulose as now required in all the present claims. JP 54138732 discloses graft polymerizing water-soluble monomers such as N-vinylpyrrolidone, lower alkyl vinyl ether, (meth)acrylic acid, (meth)acrylamide, 4-vinylpyridine, and cyclic monomers such as ethylene oxide, tetrahydrofuran, and ethyleneimine onto the pigment. But there is no disclosure or suggestion of using the specific water-soluble polymers now required in all the present claims. Further, there is no disclosure or suggestion in JP 54138732 of associative thickener or pH controller as required in all the present claims.

Thus, it is clear that JP 6346014, Shay et al., and JP 54138732, either alone or in combination, do not disclose or suggest the present invention.

In light of the above, it is clear that the rejections of record are untenable and so, the present claims are passed to issue.

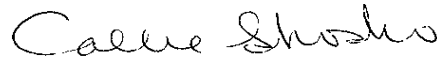
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 703-305-0208. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 703-306-2777. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Callie E. Shosho
Primary Examiner
Art Unit 1714

CS
11/17/03